

**REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Office Action of March 1, 2004 has been received and contents carefully reviewed. By this amendment, Applicant amends claims 1–2, 4–5, 7, 9, and 11–14, and cancels claims 15–16 without prejudice or disclaimer.

In the Office Action dated March 1, 2004, the Examiner objects to the drawings under 37 CFR 1.83(a); rejects claim 2 under 35 USC §112 for clarification; rejects claim 5 under 35 USC §112 for clarification; rejects claims 15 and 16 under 35 USC §112 due to antecedent bases; rejects claims 1–2 and 7 under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,205,431 to Willemain et al. (hereinafter “Willemain”); and rejects claims 3–6 and 8–16 under 35 USC §103(a) as being unpatentable over Willemain.

In the Office Action dated March 1, 2004, the Examiner objects to the drawings under 37 CFR 1.83(a). Applicant hereby amends the drawings in response. Specifically, element 215 of FIG. 2 and FIG. 3, as amended, show the establishing of linear statistical models, “based on temperature, hours of operation, and flight cycles.” Regarding the confidence figure of claims 15-16, Applicant cancels these claims, rendering the objection moot.

In the Office Action dated March 1, 2004, the Examiner rejects claim 2 under 35 USC §112 for clarification. In response, Applicant amends claim 2 to further define the term (1- $\alpha$ ) as being “the probability that the unscheduled component demand will not exceed the allowable probability.” Applicant respectfully submits that claim 2, as amended, provides the clarification required by the Examiner.

In the Office Action dated March 1, 2004, the Examiner rejects claim 5 under 35 USC §112 for clarification. Applicant hereby amends claim 5 to recite “eliminating insignificant variables and variables that cause multicollinearity from each of the established models using the historical unscheduled component data.” Applicant respectfully submits that claim 5, as amended, addresses the Examiner’s rejection.

In the Office Action dated March 1, 2004, the Examiner rejects claims 15 and 16 due to antecedent basis. By this amendment, Applicant cancels claims 15 and 16 without prejudice or disclaimer. Accordingly, the rejection of claims 15 and 16 is moot.

In the Office Action dated March 1, 2004, the Examiner rejects claims 1-2 and 7 under 35 USC §102(e) as being anticipated by Willemain. The rejection of claim 1 is respectfully traversed and reconsideration is requested. Claim 1 is allowable over Willemain in that the claim, as amended, recites “establishing a set of statistical models for a probability of unscheduled component demand as a function of at least a failure rate of a component.” Nothing in Willemain teaches or suggests at least this feature of the claimed invention.

Specifically, Willemain is directed toward “intermittent demand” for a “sales planning system,” (abstract) and “inventory management” in “commercial activities, such as manufacturing and retail.” (Col. 1, ll. 11–12). Further, Willemain is directed toward “demand for spare parts and high priced capital goods such as heavy machinery, jet engine tools and air craft,” (col. 4, ll. 28–29) and “what happens when demand exceeds on-hand inventory, i.e., lost orders or back orders.” (Col. 5, ll. 2–4). As such, Willemain teaches inventory management from the perspective of a commercial supplier or retailer, based on inventory, demand, and item lead time. Willemain simply fails to teach or suggest using the failure rate of a component as a

criteria in unscheduled component demand. Accordingly, Applicant respectfully submits that claim 1, and claims 2–6, and 12–14, which depend from claim 1, are allowable over the cited reference. As can be appreciated, this failure rate of components in use in an aircraft fleet is crucial to handling replacement part availability.

The rejection of claim 2 is respectfully traversed and reconsideration is requested. Claim 2, which depends from claim 1, is allowable over Willemain in that the claim, as it depends from amended claim 1, recites “establishing a set of statistical models for a probability of unscheduled component demand as a function of at least a failure rate of a component.” For at least the reasons pertaining to claim 1, nothing in Willemain teaches or suggests at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that claim 2 is allowable over the cited reference.

The rejection of claim 7 is respectfully traversed and reconsideration is requested. Claim 7 is allowable over Willemain in that the claim, as amended, recites “establishing a set of statistical models for modeling unscheduled demand for the components as a function of a failure rate of each of the components.” Nothing in Willemain teaches or suggests at least this feature of the claimed invention, for the same or similar reasons as those regarding claim 1. Accordingly, Applicant respectfully submits that claim 7, and claims 8–11, which depend from claim 7, are allowable over the cited reference.

In the Office Action dated March 1, 2004, the Examiner rejects claims 3–6 and 8–16 under 35 USC §103(a) as being unpatentable over Willemain. The rejection of claims 3–6 is respectfully traversed and reconsideration is requested for at least the reasons given for claim 1. Accordingly, Applicant respectfully submits that claim 3–6 are allowable over the cited

reference. The rejection of claims 12–14 is respectfully traversed for the same or similar reasons as for claim 1. Further, Applicant respectfully submits that Willemain does not teach or suggest factoring temperature, hours of operation, or flight cycles. For example, Willemain is directed toward intermittent demand in a retail or commercial environment, as discussed regarding claim 1. In addition, not only are temperature, hours of operation, or flight cycles not mentioned in Willemain, but none of the statistical mechanisms taught in Willemain provide for incorporation of such factors.

The rejection of claims 8–16 is respectfully traversed and reconsideration is requested. Claims 8–11 depend from claim 7, and claims 15–16 are canceled without prejudice or disclaimer. Claim 7, as amended, recites “establishing a set of statistical models for modeling unscheduled demand for the components as a function of a failure rate of each of the components.” As discussed above, nothing in Willemain teaches or suggests at least this feature of the claimed invention. Accordingly, Applicant respectfully submits that claim 8–14, which depend from claim 7, are allowable over the cited reference.

Applicants believe the foregoing amendments place the application in condition for allowance and early, favorable action is respectfully solicited.

If the Examiner deems that a telephone conversation would further the prosecution of this application, the Examiner is invited to call the undersigned at (202) 496-7500.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. §1.136 for any necessary extension of time, or any other fees required to complete the

filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: September 1, 2004

Respectfully submitted,

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Attachments